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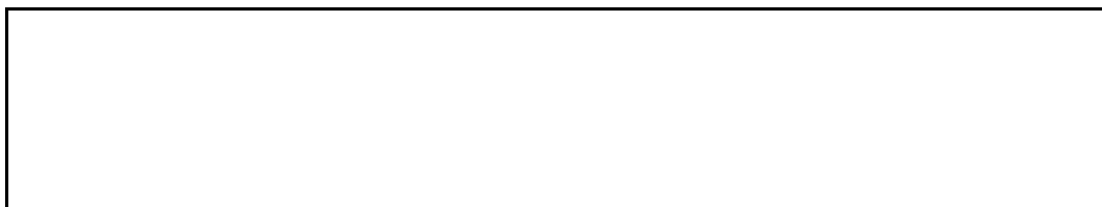
PHOTOGRAPHIC INTELLIGENCE REPORT

VITAL RECORDS COPY

LENINGRAD SPACE TRACKING/

RECEIVING FACILITY

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GROUP 1  
Excluded from automatic  
downgrading and declassification

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DATE Apr 1967  
COPY 106  
PAGES 17 25X1

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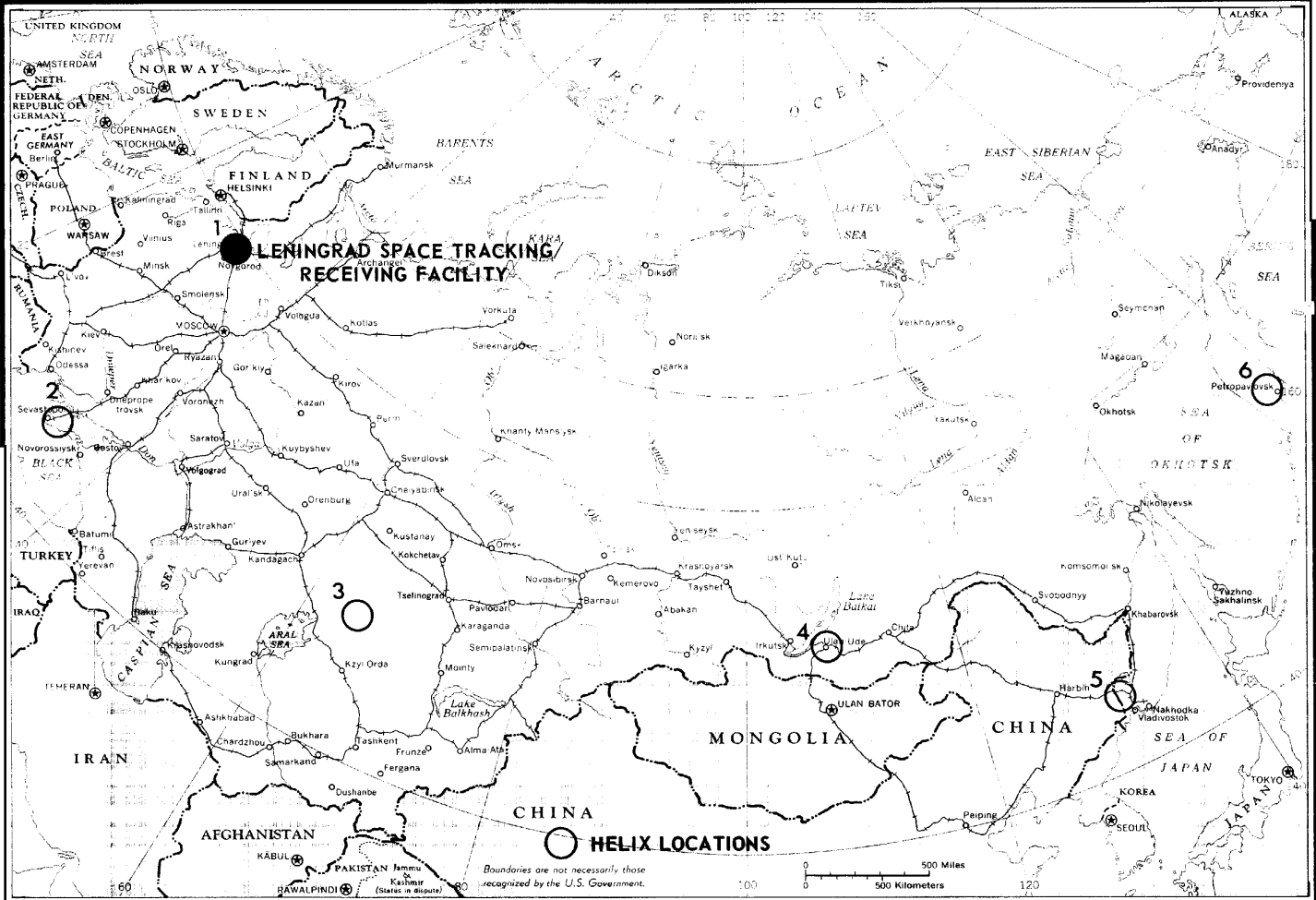


FIGURE 1. LOCATIONS OF KNOWN SOVIET 16 HELIX ARRAY FACILITIES

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## LENINGRAD SPACE TRACKING/RECEIVING FACILITY

### INTRODUCTION

This report is the result of a search conducted in the general area of Pushkin-Krasnoye Selo-Strela, USSR to determine the presence of a satellite telemetry collection site and a probable VHF (very high frequency) transmitter site. The search revealed a satellite telemetry collection site - The Leningrad Space Tracking/Receiving Facility - located approximately 3 nautical miles (nm) east-southeast of Krasnoye Selo. This facility contains a 16 helix array area similar to those previously observed at Simferopol, Tyuratam, Ulan Ude, Galenki, and Khutor, USSR. No VHF transmitter site was observed in the search area. Figure 1 shows the locations of known Soviet 16 Helix Array Facilities, which are listed below:

<u>Annotation</u>	<u>Title</u>
1	Leningrad Space Tracking/ Receiving Facility 59-43N 30-10E
2	Simferopol ESV Tracking Facility 45-03N 33-53E
3	Tyuratam Missile Test Range 45-55N 63-20E
4	Ulan Ude ESV Tracking Facility 51-52N 107-55E
5	Galenki ESV Tracking Facilities 44-01N 121-45E
6	Khutor ESV Tracking Facility and Krug Antenna Facility 2 53-06N 158-34E

### GENERAL INFORMATION

The Leningrad Space Tracking/Receiving Facility is located approximately 14 nm southwest of Leningrad and 3 nm east-southeast of Krasnoye Selo, USSR at 59-43-30N 30-10-30E (Figure 1). The facility is road served and covers

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approximately 250 acres. The Krasnoye Selo-Pushkin Highway divides this facility into two major areas--one containing the 16 helix array and the other serving as the main support area (Figure 2). Each area was examined in detail and will be discussed separately in this report.

### 16 HELIX ARRAY

The 16 helix array is located on the north side of the Krasnoye Selo-Pushkin Highway and is separately secured, rectangular in shape, and measures approximately 550 by 300 feet. The secured area contains a control building, two pedestals (one occupied with a 16 helix array and one apparently unoccupied), two support-type buildings\*, one small structure and an area of unidentified activity (Figure 3). Photographic analysis of this area indicates it is similar to those observed at Simferopol, Tyuratam, Ulan Ude, Galerki, and Khutor.

Comparison of the longitudinal orientation of the control building at this facility, with those of the previously mentioned locations, revealed that no correlation of control building orientations exist between the various facilities. The following is a tabulation of the various control building orientations observed at the known Soviet 16 helix array locations.

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<u>Location</u>	<u>Control Building</u>	<u>Orientation</u>
Leningrad	A	
Simferopol	A	95/275 degrees
Simferopol	B	130/310 degrees
Tyuratam	A	
Tyuratam	B	35/215 degrees
Ulan Ude	A	
Ulan Ude	B	150/330 degrees
Galenki	A	65/245 degrees
Khutor	A	0/180 degrees
Khutor	B	

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\* Dimensions and descriptions for all buildings are shown in Table I.

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Detailed photographic analysis of the pedestal mounted 16 helix array at the Leningrad Space Tracking/Receiving Facility revealed it to be identical to one previously observed at the Simferopol ESV Tracking Facility (Figure 4). The 16 helix array at the Simferopol facility has been observed in various azimuth and elevation track modes, and this ability to track in various modes probably precludes the necessity of a specific control building orientation.

At the Leningrad Space Tracking/Receiving Facility, one support building was first observed in the 16 helix array area on photography [redacted] Prior to this time the actual extent of this area could not be positively determined, although the access road leading into the area was present [redacted] Con-  
struction of the control building began [redacted] However, positive identification of the pedestals and determination of this area as a satellite telemetry collection site was not possible [redacted] Subsequent coverage of this area has failed to reveal any substantial change between [redacted] the present.

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#### MAIN SUPPORT AREA

The main support area is located on the south side of the Krasnoye Selo-Pushkin Highway. It consists of an admin/housing section, an operation section, a probable maintenance section, a probable satellite telemetry collection site, and a possible communication site.

The administration/housing section appears to be unsecured and contains approximately 32 buildings. These include four multi-story administration-type buildings, fourteen barracks-type buildings, at least five storage-type buildings, and numerous support buildings. Ground photography revealed numerous stick masts located between the administration/housing section and the Krasnoye Selo-Pushkin Highway, however, the presence of these masts could not be confirmed on [redacted] photography. A small possible cooling pond is located in the southwest corner of this section adjacent to the operations section.

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The operations section contains approximately seven buildings and a tower of undetermined function. Five of these buildings, including a large multi-story operations-type building, are enclosed by a security fence. Also within this secured area are two probable buildings under construction and numerous unidentified objects. The two remaining buildings and the tower are located adjacent to the secured area.

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The probable maintenance section is also secured and contains approximately twelve buildings. These include one large monitor roof maintenance building, two other maintenance-type buildings, three probable storage buildings, and at least six support buildings. In addition, one piece of unidentified equipment, possibly electronics associated, was observed on a road served hardstand within the area.

The probable satellite telemetry collection site is situated on a raised elongated mound at the northwest corner of the main support area. The site consists of two support buildings, a probable satellite telemetry position and an unidentified piece of equipment, possibly an unoccupied helix pedestal. Extensive ground scarrings is visible on both sides of the elongated mound. This site is connected to the operations area by an access road and probable cable scarring.

The possible communication site covers an area of approximately 405 by 380 feet, and contains a single small building. Although quality and scale of photography precluded identification of antennas, a communication function is suggested by the size, shape, and location of the site.

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The Leningrad Space Tracking/Receiving Facility was first observed in an early stage of construction on photography [redacted] Figure 6). At that time only six small unidentified buildings were visible in the main support area and no positive determination could be made regarding the function of this facility. [redacted]

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[redacted] The facility was not covered again until [redacted] This photography revealed that approximately nineteen new buildings and the possible communication site had been constructed in the interim period [redacted] seven additional buildings were observed and a major expansion appeared to be underway. Construction of the probable satellite telemetry collection site began [redacted] Excellent quality photography [redacted] revealed additional buildings to be present and all three sections of the main support area were clearly discernible.

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[redacted] revealed four additional buildings, an unidentified tower, and the probable satellite telemetry position. Viewed in retrospect, a functional determination for the facility could be made at that time. Finally [redacted] at least six additional buildings were added and foundations were observed for two others under construction (Figures 5 and 7).

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All mensuration shown in this report was performed by the NPIC Technical Intelligence Division. Linear dimensions are considered to be accurate within  $\pm 5$  feet or  $\pm 5$  percent, whichever is greater. Azimuths are considered accurate within  $\pm 5$  degrees.

REFERENCES

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MAPS AND CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0153-4HL, Scale 1:200,000  
2nd edition, May 1963 (SECRET)

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2. DOD. Intelligence Information Report No. 2 901 0196 65, September 1965 (SECRET)
3. DOD. Intelligence Information Report No. 2 901 0150 65, July 1965 (CONFIDENTIAL)

#### REQUIREMENTS

C-DS6-83,347  
C-DS6-84,023

#### DDI/IAS PROJECTS

30815-6  
30401-7

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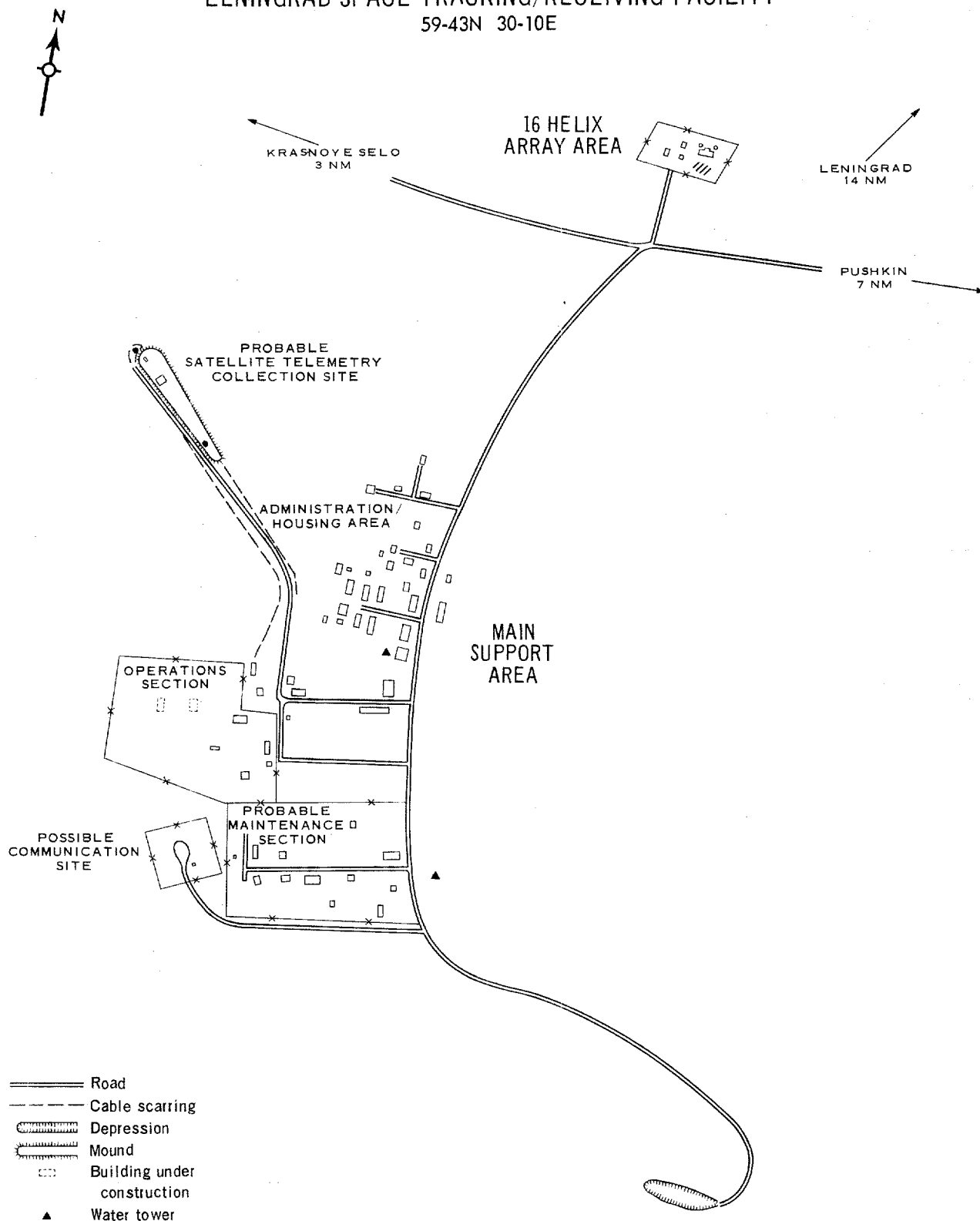
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# LENINGRAD SPACE TRACKING/RECEIVING FACILITY 59-43N 30-10E



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FIGURE 2

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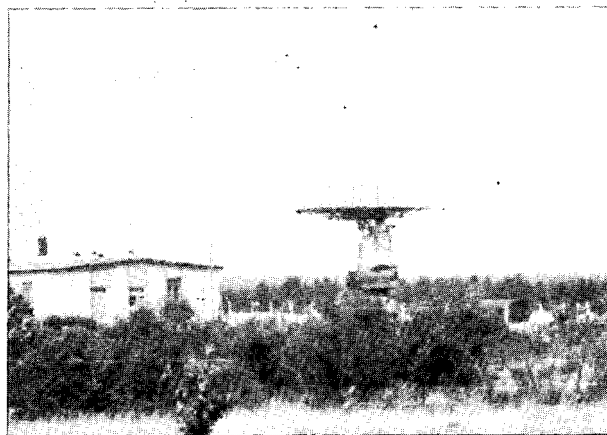
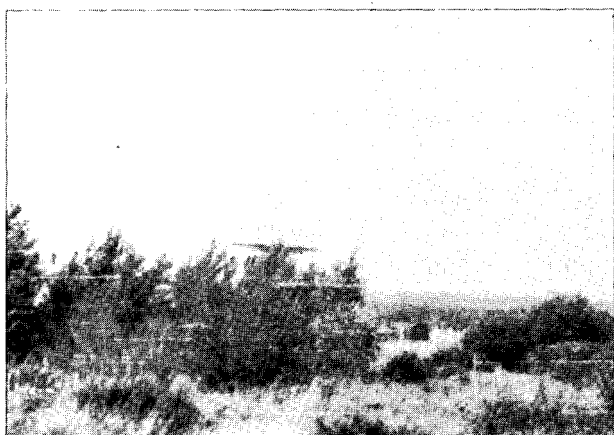
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16 HELIX ARRAY AREA,  
LENINGRAD SPACE TRACKING/RECEIVING FACILITY

GROUND PHOTOGRAPHS OF A 16 HELIX ARRAY PROBABLY LOCATED AT INDICATED POSITION



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ARRAY  
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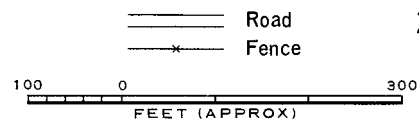
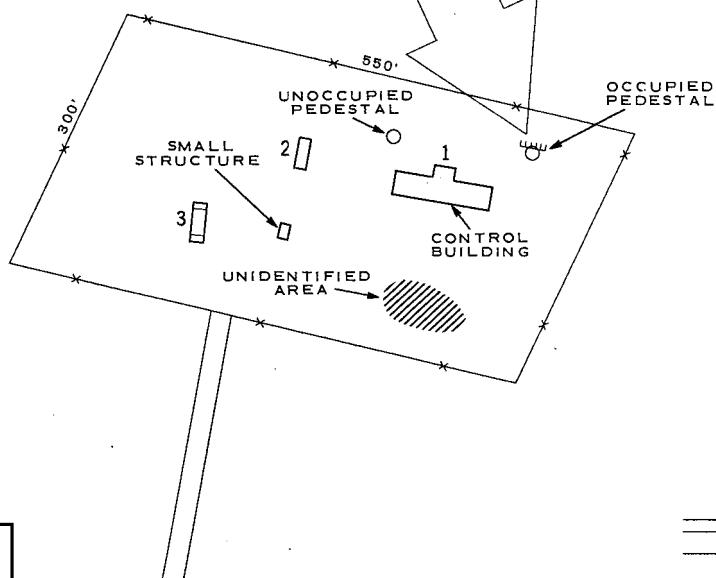


FIGURE 3

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PEDESTAL MOUNTED 16 HELIX ARRAY AT  
SIMFEROPOL ESV TRACKING FACILITY



FIGURE 4

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MAIN SUPPORT AREA,  
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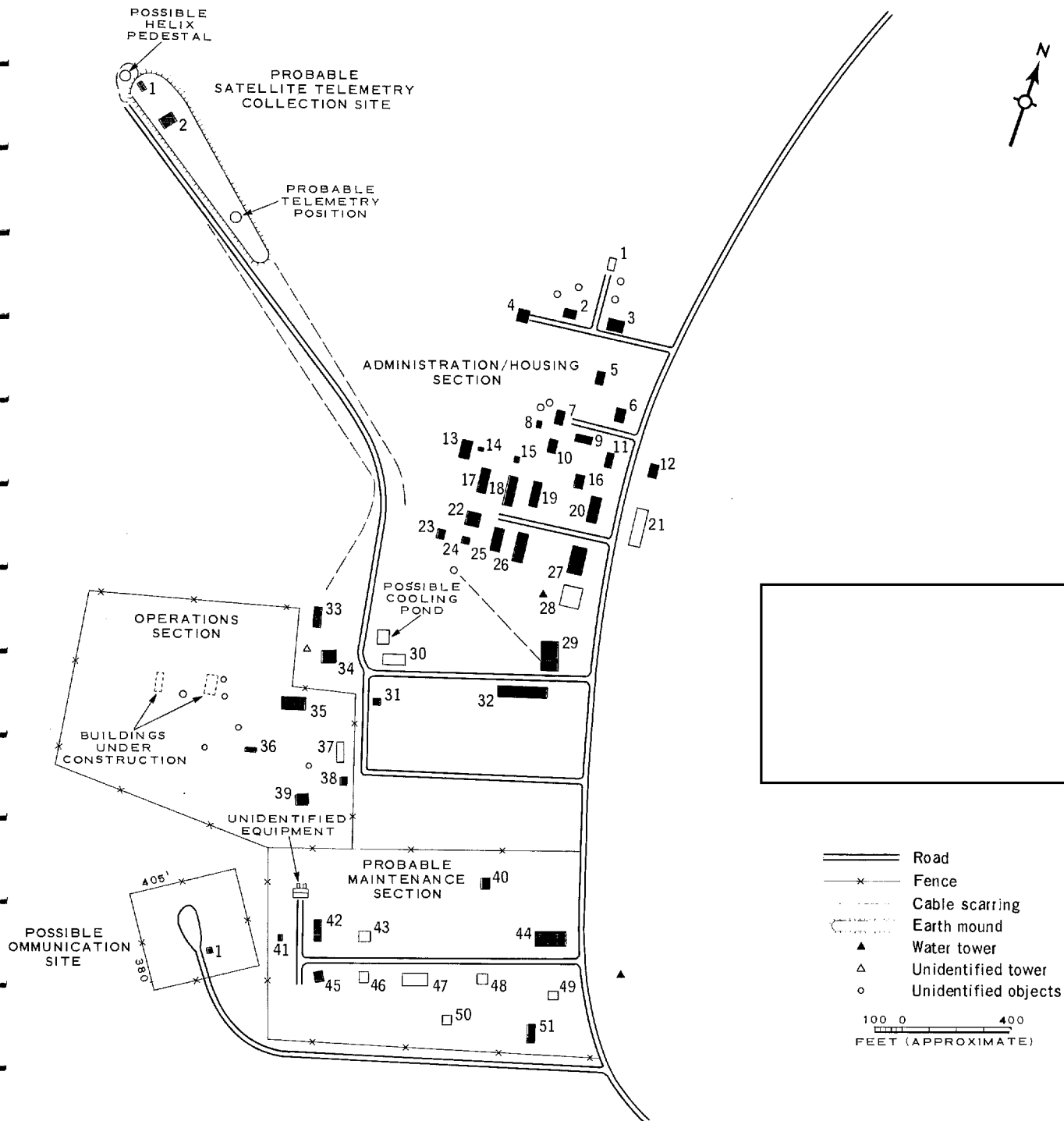
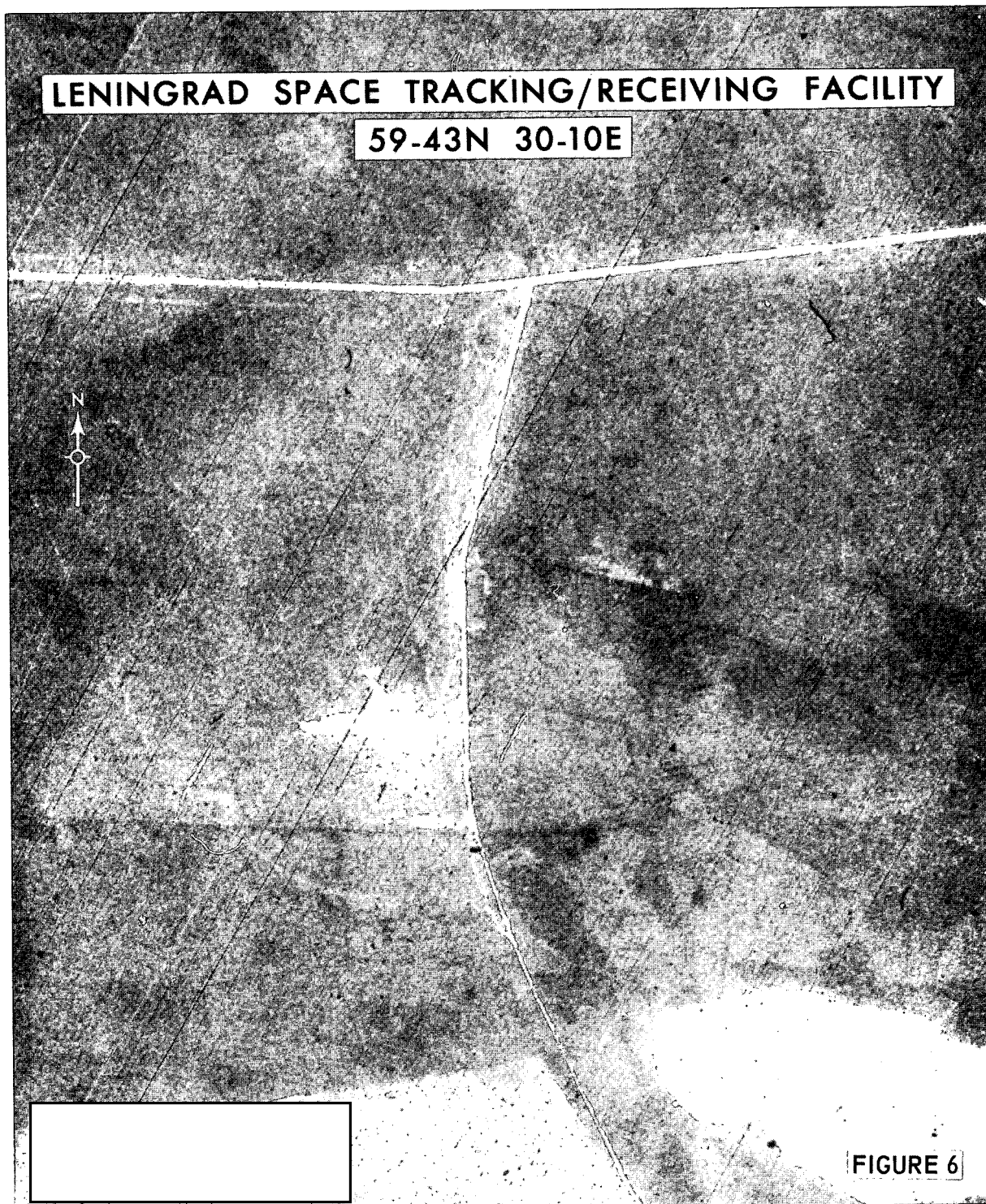


FIGURE 5

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TABLE I

LENINGRAD SPACE TRACKING/RECEIVING FACILITY

BUILDING DATA

I. 16 Helix Array (Figure 3)

<u>Building Number</u>	<u>Dimensions</u> <u>Length</u>	<u>Width</u>	<u>Probable Function</u>
1	85	35	Control
2	30	15	Support
3	40	25	Support

II. Main Support Area (Figure 5)

A. Administration/Housing Section

<u>Building Number</u>	<u>Dimensions</u> <u>Length</u>	<u>Width</u>	<u>Probable Function</u>
1	45	25	Support
2	50	45	Support
3	45	30	Support
4	55	30	Housing
5	50	30	Housing
6	55	30	Housing
7	55	30	Housing
8	25	15	Storage
9	55	30	Housing
10	55	30	Housing
11	50	30	Housing
12	65	35	Housing
13	65	40	Support
14	20	15	Storage
15	25	15	Storage
16	50	35	Support
17	100	40	Housing
18	110	30	Housing
19	95	25	Housing
20	95	40	Housing

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<u>Building Number</u>	<u>Dimensions</u>		<u>Probable Function</u>
	<u>Length</u>	<u>Width</u>	
21	145	45	Administration
22	50	45	Support
23	30	25	Storage
24	25	25	Storage
25	90	35	Housing
26	110	35	Housing
27	100	55	Administration
28	80	75	Support
29	110	65	Administration
30	85	45	Support
31	20	20	Support
32	185	40	Administration

B. Operations Section

33	75	30	Operations
34	50	50	Support
35	95	50	Operations
36	40	15	Storage
37	80	25	Operations
38	25	20	Support
39	45	40	Support

C. Probable Maintenance Section

40	40	35	Support
41	25	20	Storage
42	85	25	Maintenance
43	45	45	Support
44	120	55	Maintenance
45	40	35	Storage
46	40	35	Support
47	95	50	Support
48	45	45	Support
49	40	30	Support
50	40	35	Support
51	70	30	Maintenance

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III. Probable Satellite Telemetry Collection Site (Figure 5)

<u>Building Number</u>	<u>Dimensions</u> <u>Length</u> <u>Width</u>	<u>Probable Function</u>
1	20      10	Support
2	55      40	Support

IV. The Possible Communication Site (Figure 5)

<u>Building Number</u>	<u>Dimensions</u> <u>Length</u> <u>Width</u>	<u>Probable Function</u>
1	15      10	Security

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